

INSTALLATION AND QUICK-START GUIDE
CONNECTION GUIDE
OPERATING GUIDE
REMOTE COMMUNICATIONS GUIDE

E-Vision 8000 Series

**High Brightness Digital Video Projector** 



Rev D May 2013 112-796D

### **About This Document**

Please follow the instructions in this manual carefully to ensure safe and long-lasting use of the projector.

Keep this manual handy for future reference.

### Symbols used in this manual

Many pages in this document have a dedicated area for notes. The information in that area is accompanied by the following symbols:



ELECTRICAL WARNING: this symbol indicates that there is a danger of electrical shock unless the instructions are closely followed.



WARNING: this symbol indicates that there is a danger of physical injury to yourself and/or damage to the equipment unless the instructions are closely followed.



NOTE: this symbol indicates that there is some important information that you should read.

#### **Product revision**

Because we at Digital Projection continually strive to improve our products, we may change specifications and designs, and add new features without prior notice.

### Legal notice

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**Notes** 

### Introduction

Congratulations on your purchase of this Digital Projection product.

Your projector has the following key features:

- Swappable color wheels for high brightness and color critical applications.
- 3GSDI with loop-through.
- Cornerstone, Vertical & Horizontal Keystone, Pincushion & Barrel, and Image Rotation.
- Blanking control for custom input window sizing.
- Edge Blending with Black Level Uplift in blend region and correction for non-active pixels at the edge of the display.
- Two sources can be displayed either one within the other (PIP), or side by side with original aspect ratios maintained.
- Motorized and programmable shift, zoom and focus. Intelligent Lens Memory with 10 user-definable preset positions.
- Control via LAN and RS232.

A serial number is located on the back of the projector. Please record it here:

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**High Brightness Digital Video Projector** 



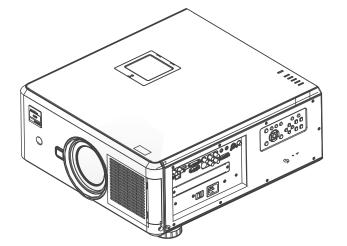
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### What's In The Box?







**Projector** 

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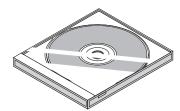


Make sure your box contains everything listed. If any pieces are missing, contact your dealer.



You should save the original box and packing materials, in case you ever need to ship your projector.

Remote control (112-532)



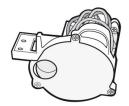
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Important Information (112-797)



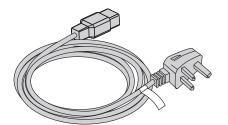
Lens cap



RGBCMY color wheel



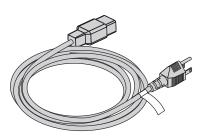
An RYGCWB color wheel, optimized for brightness, is fitted as standard. Use the RGBCMY color wheel for optimized color.



Power cable. **United Kingdom** (112-814)



Power cable, **Europe** (112-816)



Power cable. North America (112-815)



Power cable. China (112-817)



Only one power cable - dependent on the destination territory - will be supplied with the projector.

Indicator

panel

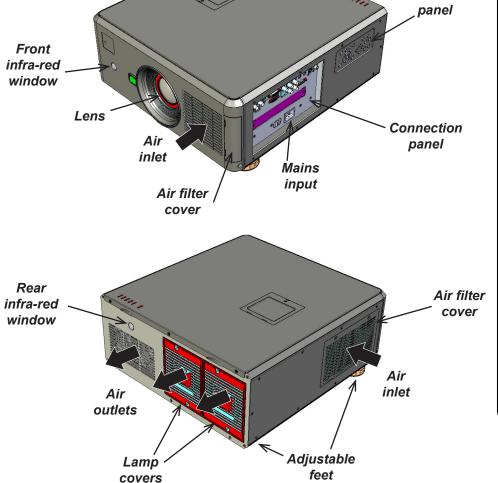
Control

## **Getting To Know The Projector**

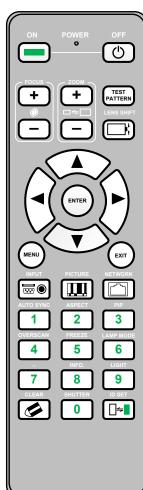
#### Front and rear views

Color wheel

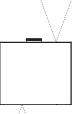
cover



#### **Remote control**









Infra-red reception

#### Notes

The projector can use an infra-red or a wired remote control.

> Some of the controls are duplicated on the projector control panel, as shown on the next page.



For full details of how to use the controls and the menu system, see the Operating Guide.



The air filters should be cleaned or changed regularly, depending on the installation environment.

> The filters should be changed at the same time as the lamp is changed.

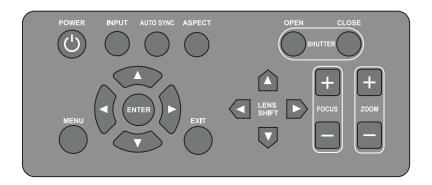


The projector lens is shipped separately.

### **Control panel**

Some of the controls from the remote control are duplicated on the projector control panel, as shown below.

The EXIT button has the same function as the RETURN button on the remote control.



#### **Indicators**

**SHUTTER** off = OPEN green = CLOSED

off = NO ERROR flashing red = ERROR (temperature) **TEMP** 

off = OFF LAMPS 1,2

> flashing red = LAMP ERROR red = END OF LIFE

flashing green = LAMP WARM-UP green = ON

**STATUS** off = NO ERROR

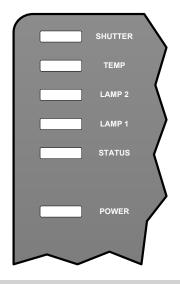
flashing red (1 flash) = COVER OPEN flashing red (4 flashes) = FAN ERROR

red = SYSTEM ERROR

off = NO POWER **POWER** 

> red = STANDBY mode green = normal RUNNING mode

flashing green = PROJECTOR WARM UP flashing amber = PROJECTOR COOL DOWN



#### Notes



For full details of how to use the controls and the menu system, see the Operating Guide.

### Changing The Lens, Lamps, Filters And Color Wheel

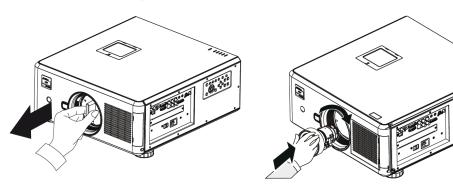
### **Removing the lens**

- Push in the lens release lever, and turn the lens anti-clockwise.
- Remove the lens.



### **Fitting the lens**

- Remove the lens cap.
- Position the lens so that the labels are at the top, and gently insert it all the way into the lens mount.
- Push the lens in firmly, and turn it clockwise until it clicks into place.



#### Notes



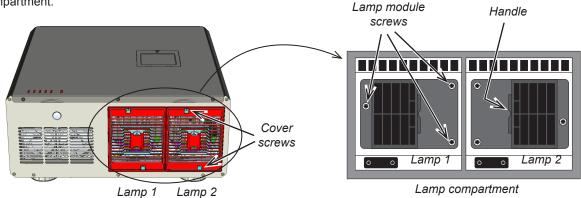
The projector lens is shipped separately.



The Center Lens command must be used after a new lens is inserted. See the **Operating Guide** for more details.

### Changing a lamp

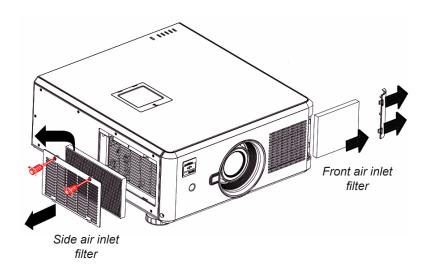
- Unscrew the two captive screws securing the cover for the lamp that needs changing.
- Open the lamp compartment.



- Unscrew the three captive screws securing the lamp module.
- Pull firmly on the handle to remove the lamp module.
- Insert a new lamp module and fasten the screws.
- Replace the lamp compartment cover and fasten the screws.

### **Changing the filters**

- Unscrew the captive screws securing the cover for the side air inlet.
- Replace the filter, making sure that the arrow showing the air flow direction is pointed inwards.
- Replace the cover and fasten the screws.
- Remove the cover for the side air inlet by pushing it firmly to the right, as shown.
- Replace the filter, making sure that the arrow showing the air flow direction is pointed inwards.
- Replace the cover.



#### Notes



Always allow the lamp to cool for 5 minutes before:

- disconnecting the power
- moving the projector
- changing the lamp



The lamp and color wheel must be changed only by suitably qualified personnel.



The projector will shut down if any of the covers are opened whilst in operation.

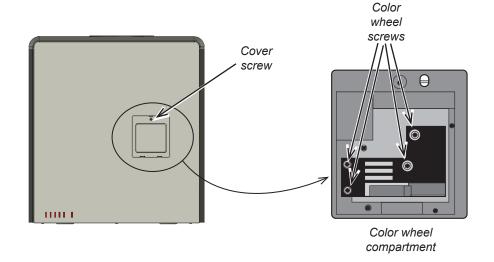


The filters should be changed at the same time as the lamp is changed.

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### **Changing the color wheel**

- Unscrew the captive screw securing the color wheel compartment cover.
- Open the color wheel compartment.
- Unscrew the four captive screws securing the color wheel.
- Remove the color wheel.
- Insert a new color wheel and fasten the screws.
- Replace the cover and fasten the screw.



#### Notes



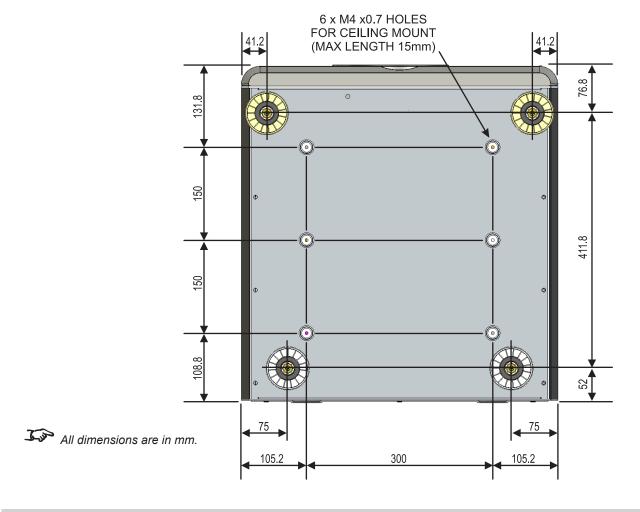
The lamp and color wheel must be changed only by suitably qualified personnel.



The projector will shut down if any of the covers are opened whilst in operation.

### **Positioning The Screen And Projector**

- Install the screen, ensuring that it is in the best position for viewing by your audience.
- Mount the projector, ensuring that it is at a suitable distance from the screen for the image to fill the screen. Set the adjustable feet so that the projector is level, and perpendicular to the screen.
- The dimension drawing below shows the positions of the feet for table mounting, and the fixing holes for ceiling mounting.



#### Notes



Always allow the lamp to cool for 5 minutes before:

- disconnecting the power
- moving the projector



Ensure that there is at least 70cm (28in) of space between the ventilation outlets and any wall, and 50cm (20in) on all other sides.

If ceiling mounting, ensure there is 30cm (12in) of space between the projector and ceiling.



Backup safety chains or wires should always be used with ceiling mount installations.

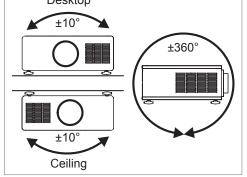


Do not stack the projectors.



Do not tilt the projector more than ±10° in either direction, in desktop or ceiling mode, when in use, as this may cause serious lamp failure, damage the lamp module and cause extra cost on replacement.

Desktop



### **Operating The Projector**

### Switching the projector on

- Connect the power cable between the mains supply and the projector. Switch on at the switch next to the power connector.
- Wait until the self-test has completed and the *Power* indicator on the projector control panel shows red. The lamp will be off and the projector will be in *STANDBY* mode.
- Press POWER (<sup>1</sup>) on the control panel or POWER ON on the remote control.

The **Power** indicator on the control panel will flash green for a few seconds whilst the lamp comes up to full brightness. When the projector is ready for use, the **Power** indicator will show steady green.

### Selecting an input signal or test pattern

#### Input signal

- Connect an image source to the projector. The signal should be automatically detected by the projector, and should be displayed within a
  two or three seconds.
- If more than one signal is connected, then select the image you want to display:

Press **INPUT** repeatedly on the control panel or remote control to cycle through the inputs.

or use Input Selection in the INPUT menu.

#### Test pattern

If you do not have an image source connected to the projector, then you can display a test pattern instead:

Press **TEST PATTERN** repeatedly on the remote control to cycle through the test patterns,

or select a Test Pattern from the INPUT menu.

To return to viewing the image from your image source, scroll through the test pattern list to Off.

Notes

For full details of how to connect an image source to the projector, see the **Connection Guide**.

For full details of how to use the controls and the menu system, see the **Operating Guide**.

### **Adjusting the lens**

#### Zoom

Use the **ZOOM** +/- buttons on the control panel or on the remote control to adjust the lens so that the image fills the screen.

or use Lens Control in the ALIGNMENT Menu.

#### **Focus**

Use the **FOCUS** +/- buttons on the control panel or on the remote control to adjust the lens until the image is sharp.

or use Lens Control in the ALIGNMENT Menu.

#### Shift

• Use the **LENS SHIFT** buttons  $\triangleleft$ ,  $\triangleright$ ,  $\wedge$  and  $\nabla$  on the control panel to adjust the position of the image,

or press the **LENS SHIFT** button on the remote control then use  $\triangleleft$ ,  $\triangleright$ ,  $\triangle$  and  $\nabla$ to adjust the position of the image.

or use Lens Control in the ALIGNMENT Menu.

### Adjusting the image

#### **Orientation**

Use the Rear Projection or Ceiling Mode settings, in the ALIGNMENT Menu.

#### **Aspect Ratio**

 Press the RESIZE button on the control panel or the ASPECT button on the remote control to cycle through all the available settings.

or use the Aspect Ratio setting in the PICTURE Menu.

#### **Picture**

Press PICTURE on the remote control or use the menu controls, to open the PICTURE Menu.

Use the sliders in the **PICTURE** menu to adjust the brightness, contrast etc.

**Notes** 

For full details of how to use the controls and the menu system, see the Operating Guide.

### **Switching the projector off**

- Press and hold **POWER** () on the control panel or **POWER OFF** on the remote control for 5 seconds.
  - The lamp will go off, and the *Power* indicator on the control panel will flash amber for a few seconds whilst the lamp cools. The *Power* indicator on the control panel will then show red and the projector will be in *Standby* mode.
- Switch off at the switch next to the power connector. Disconnect the power cable from the projector.

#### Notes



Always allow the lamp to cool for 5 minutes before:

- disconnecting the power
- moving the projector



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**High Brightness Digital Video Projector** 



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Screen Trigger output	Conn 1

### Signal Inputs And Outputs

#### **3G-SDI IN**

Connect a 3G-SDI cable to the left hand SDI BNC.

#### **3G-SDI OUT**

• Connect a 3G-SDI cable to the right hand SDI BNC, to distribute the signal to another

#### **HDMI**

Connect a HDMI cable to the HDMI connector.

#### **DVI-D**

Connect a **DVI-D** cable to the DVI connector.

#### **VGA**

- If necessary, use the VGA Setup controls in the PICTURE menu. For more information, see the Operating Guide.
- Set Color Space in the INPUT menu to Auto or RGB-PC.

#### COMPONENT

#### **RGBHV, RGsB or RGBS**

• Set Color Space in the INPUT menu to Auto or RGB-Video.

#### YPbPr or YCbCr

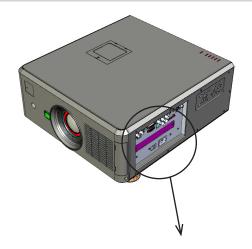
Set Color Space in the INPUT menu to YPbPr or YCbCr.

#### S-Video

• Connect an **S-Video** cable to the 4-pin mini-DIN.

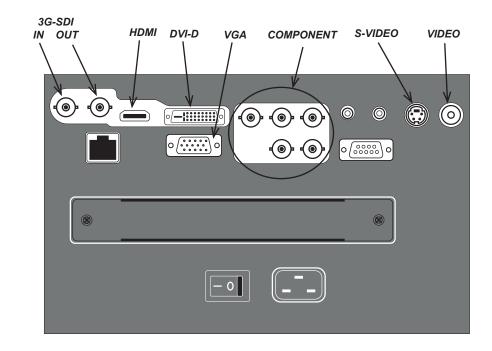
#### Video

- Connect a composite video cable to the single RCA phono connector.
- Set Video Standard in the INPUT menu to Auto, PAL, SECAM, or NTSC



#### Notes

For a complete listing of pin configurations for all signal and control connectors, see Wiring Details later in this Guide.



## Supported Signal Input Modes

Star	ndard	Resolution	Refresh Rate ( Hz )	Total number of lines	Horizontal Frequency (kHz)	VIDEO	S-VIDEO	COMPONENT	DVI-A / VGA	DVI -D / HDMI	3G-SDI
SDTV	480i	720 x 480	60	525	15.73	✓	✓	✓			✓
	576i	720 x 576	50	625	15.63	✓	✓	✓			✓
EDTV	480p	720 x 480	60	525	31.51			✓		✓	
	576p	720 x 576	50	625	31.25			✓		✓	
HDTV	720p50	1280 x 720	50	750	37.51			✓		✓	
	720p60	1280 x 720	60	750	45.00			✓		✓	✓
	1035i60	1920 x 1080	35	1125	33.75			✓		✓	✓
	1080sf25	1920 x 1080	25	1125	28.13			✓		✓	✓
	1080sf30	1920 x 1080	30	1125	33.75			✓		✓	✓
	1080i50	1920 x 1080	50	1125	28.13			✓		✓	✓
	1080i59	1920 x 1080	59.94	1125	33.72			✓		✓	✓
	1080i60	1920 x 1080	60	1125	33.75			✓		✓	✓
	1080p24	1920 x 1080	24	1125	27.00			✓		✓	✓
	1080p25	1920 x 1080	25	1125	28.13			✓		✓	✓
	1080p30	1920 x 1080	30	1125	33.75			✓		✓	✓
	1080p50	1920 x 1080	50	1125	56.24			✓		✓	✓
	1080p59	1920 x 1080	59.94	1125	67.43			✓		✓	✓
	1080p60	1920 x 1080	60	1125	67.48			✓		✓	✓
COMPUTER	480p	640 x 480	60	525	31.47				✓	✓	
	VGA75	640 x 480	75	500	37.50				✓	✓	
	MACI	640 x 480	66.59		35.00				✓	✓	
	SVGA60	800 x 600	60	628	37.88				✓	✓	
	MACII	832 x 624	74.54		49.10				✓	✓	
	XGA60	1024 x 768	60	806	48.36				<b>√</b>	✓	
	XGA70	1024 x 768	70	806	56.48				<b>✓</b>	✓	
	XGA85	1024 x 768	85	808	68.68				✓	✓	
	WXGA60	1280 x 768	60	798	47.78				<b>√</b>	✓	
	WXGA+60	1440 x 900	60	934	55.94				✓	✓	
			continu	ied on ne	xt page						

Notes

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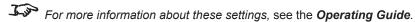
continued from previous page										
Standard	Resolution	Refresh Rate ( Hz )	Total number of lines	Horizontal Frequency (kHz)	VIDEO	S-VIDEO	COMPONENT	DVI-A / VGA	DVI-D / HDMI	3G-SDI
SXGA60	1280 x 1024	60	1066	63.98				✓	✓	
SXGA+60	1400 x 1050	60	1089	65.32				✓	✓	
UXGA60	1600 x 1200	60	1245	75.00				✓	✓	
VESA1080p	1920 x 1080	60	1120	67.50				✓	✓	
WUXGA60	1920 x 1200	60	1235	74.04				<b>✓</b>	<b>√</b>	

Notes

### **Control Connections**

#### LAN

- The projector's features can be controlled via a LAN connection, using the control strings described in the Remote Communications Guide..
- The LAN IP Address of the projector can be set by using the Web Configuration Utility. To see what the Address is set to, you can view the current Network settings in the **CONTROL** Menu.



#### **RS232**

- The RS232 port can be used to download firmware updates, issued from time to time by Digital Projection.
- The projector's features can be controlled via a serial connection, using the control strings described in the Remote Communications Guide.

#### **Wired Remote Control**

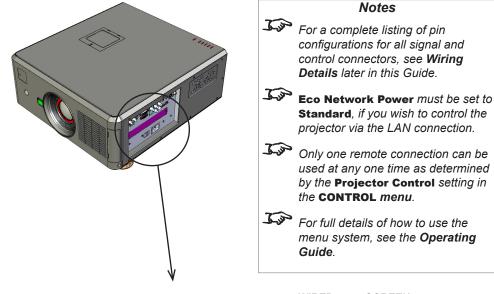
If infrared signals from the remote control cannot reach the projector due to excessive distance or obstructions such as walls or cabinet doors, you can connect an external IR repeater to the Remote Control input, and position its IR sensor within range of the operator.

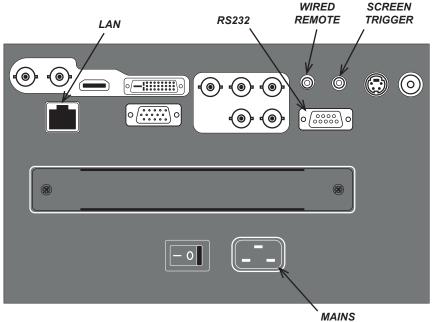


Note that plugging in the remote control cable will disable the infra-red.

### **Screen Trigger**

The Trigger output can be connected to an electrically operated screen, automatically deploying the screen when the projector is switched on, or activating curtains when the aspect ratio is changed.





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### **Wiring Details**

### Signal inputs and outputs

#### 3G-SDI

75 ohm BNC

SMPTE 292 / HD-SDI signals are very high speed digital signals which require better quality coaxial cable than conventional analogue video. The data rate is 1.5 Gigabits per second.

In choosing cable length and connectors for any installation the frequency response loss in decibels should be proportional to  $\sqrt{f}$ , from 1MHz, to 1.5GHz. The following or similar cable specification should be used to ensure fault free communication between source and projector:

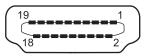
Belden 8281 cable or equivalent



#### **HDMI** input

19 way type A connector

- 1 TMDS Data 2+
- 2 TMDS Data 2 Shield
- 3 TMDS Data 2-
- 4 TMDS Data 1+
- 5 TMDS Data 1 Shield
- 6 TMDS Data 1-
- 7 TMDS Data 0+
- 8 TMDS Data 0 Shield
- 9 TMDS Data 0-
- 10TMDS Clock+15SCL (DDC Clock)11TMDS Clock Shield16SCA (DDC Data)12TMDS Clock-17DDC/CEC Ground
- 13 CEC 18 +5 V Power
- 14 not connected 19 Hot Plug Detect



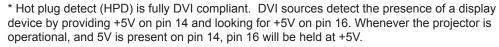
pin view of panel connector

For full details of all input settings, see the INPUT menu in the Operating Guide.

#### **DVI-D**

24 way D-type connector

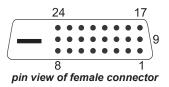
- TMDS Data 2-
- 2 TMDS Data 2+
- 3 TMDS Data 2 Shield
- 4 unused
- 5 unused
- DDC Clock 6
- 7 **DDC** Data
- 8 unused
- 9 TMDS Data 1-
- TMDS Data 1+ 10
- 11 TMDS Data 1 Shield
- 12 unused
- 13 unused
- 14 +5 V Power
- 15 Ground
- 16 Hot Plug Detect\*
- 17 TMDS Data 0-
- 18 TMDS Data 0+
- 19 TMDS Data 0 Shield
- 20 unused
- 21 unused
- 22 TMDS Clock Shield
- 23 TMDS Clock+
- 24 TMDS Clock-



EDID is available even when the projector is switched off.

Operational means that the projector is powered up. Non operational states are powered down and some self test and reprogramming modes.

High Definition Content Protection (HDCP) is supported on this input.



#### Notes



For full details of all input settings, see the INPUT menu in the Operating Guide.

#### **VGA**

15 way D-type connector

- R
- G
- 3 В
- unused
- 5 Digital Ground (H Sync)
- R Ground
- B Ground
- G Ground
- +5v 9
- 10 Digital Ground (V Sync/DDC)
- unused 11
- 12 SDA
- 13 H Sync
- 14 V Sync
- SCL 15

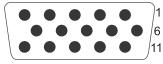
#### **COMPONENT**

5 x 75 ohm BNC

RGBHV	RGsB	YPbPr	YCbCr
Green	Green + Sync	Υ	Υ
Blue	Blue	Pb	Cb
Red	Red	Pr	Cr

Hsync

Vsync



pin view of female connector

Pb/Cb

Green







Pr/Cr



### Notes



For full details of all input settings, see the **INPUT** menu in the Operating Guide.

### Digital Projection E-Vision 8000 Series

### **WIRING DETAILS**

### **Connection Guide**

### S-Video input

4 pin mini-DIN

- Y Ground
- C Ground
- 3 Luminance (Y)
- Chrominance (C)



pin view of female connector



For full details of all input settings, see the INPUT menu in the Operating Guide.

Notes

### Video input

1 x RCA Phono

Composite Video



#### **Control connections**

#### **LAN** connection

10BaseT Unshielded Twisted Pair cable

The standard wire colors are as follows:

- White / Orange stripe
- 2 Orange
- White / Green stripe
- Blue
- White / Blue stripe
- Green
- White / Brown stripe
- Brown

#### **Crossed cable**

(used to connect directly to a computer with no hub or network.) (Note that only the green and orange pairs are crossed)

1	White / Orange stripe	White / Green stripe	1
2	Orange	Green	2
3	White / Green stripe	White / Orange stripe	3
4	Blue	Blue	4
5	White / Blue stripe	White / Blue stripe	5
6	Green	Orange	6
7	White / Brown stripe	White / Brown stripe	7
8	Brown	Brown	8



top view of cable connector (clip is underneath)

#### Notes



For full details of all control settings, see the CONTROL menu in the Operating Guide.



a straight cable to connect to a hub or network, or

a crossed cable as shown here to connect ONLY to a computer directly.

### Digital Projection E-Vision 8000 Series

#### **WIRING DETAILS**

#### **Connection Guide**

#### **RS232 Serial control input**

- unused
- Received Data (RX)
- Transmitted Data (TX)
- unused
- Signal Ground
- unused
- unused
- unused
- unused

#### **Null-modem cable**

(used to connect the projector to a computer)

RX	2	 3	TX
TX	3	 2	RX
GND	5	 5	GND

#### **Wired Remote control connection**

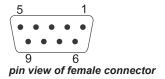
3.5mm mini jack

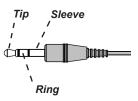
Tip Power Signal Ring Sleeve Ground

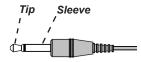
#### **Screen Trigger output**

3.5mm mini jack

Signal Tip Sleeve Ground







#### Notes



For full details of all control settings, see the CONTROL menu in the Operating Guide.



The projector is a DTE, so use:

a straight cable to connect to a modem, or

a null-modem cable as shown here to connect to another DTE such as a computer.



Note that plugging in the remote control cable will disable the infrared.



# E-Vision 8000 Series

**High Brightness Digital Video Projector** 



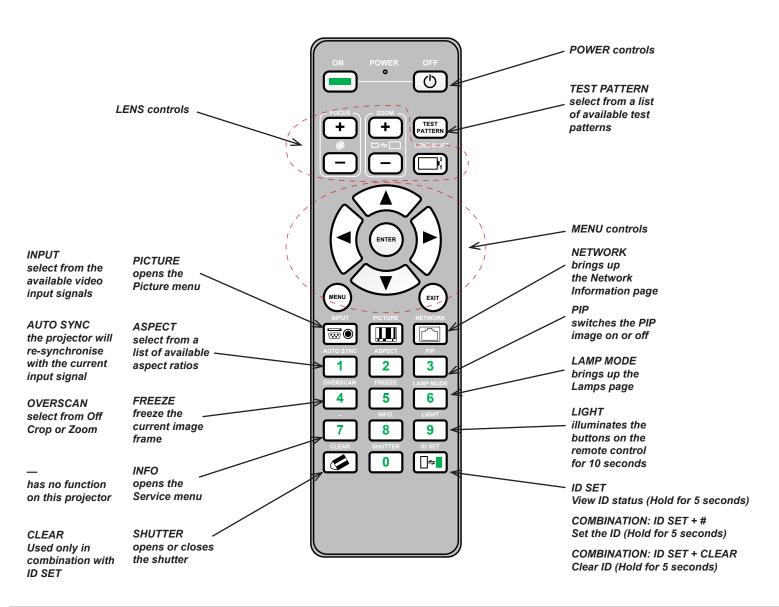
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	Edge Blend submenu	

**Operating Guide** 

### **Using The Remote Control**



#### Notes

Some options and controls may not be available due to settings in the menus.

For full details of how to use the menu system, see later in this guide.

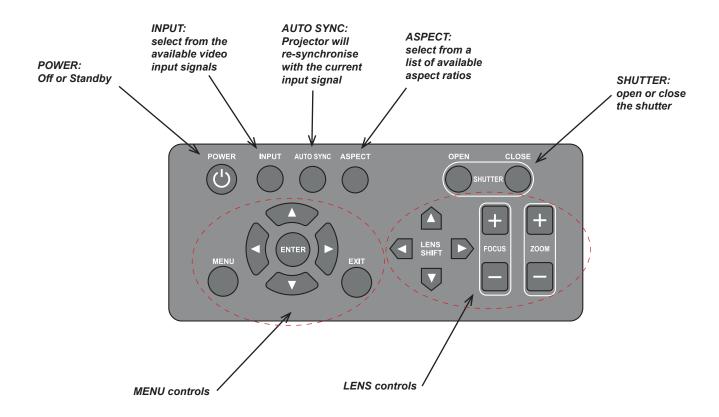
#### Test Pattern

- Press **ENTER** to display a Test Pattern.
- Use or to scroll through the following Test Patterns:
  - ... Off, Color Bars, Alignment Grid, Burst, Red, Green, Blue, White, Black, Cross Mark, Cross Hatch + Mark, Corrected Red, Corrected **Green, Corrected Blue, Horizontal** Ramp, Off ...
- To return to viewing the image from your image source, use < scroll through the list to Off.
  - To protect the lamps from thermal shock, it will not be possible to change the Lamp Mode more than

once within five minutes.

Use the ID SET feature to assign discrete ID addresses for up to nine projectors. This will enable you to operate each projector separately with a dedicated remote control.

### **Using The Control Panel**



#### Notes



Some options and controls may not be available due to settings in the menus.

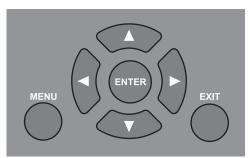


For full details of how to use the menu system, see later in this guide.

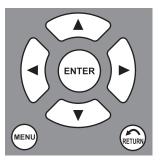
### **Using The Menus**

Use the buttons on the projector control panel or on the remote control, to access the menu system.

To open the on-screen display (OSD), press **MENU**. To close, press **EXIT**/ RETURN.



Projector control panel



Remote control

#### Notes



Some menu options and controls may not be available due to settings in other menus. These will be shaded grey on the actual menu.

### **Navigating the menus**

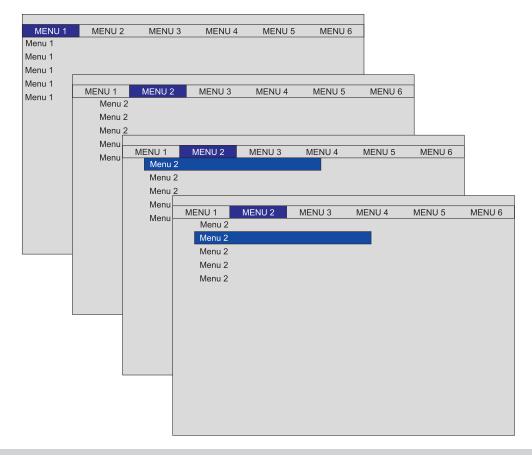
Select a menu using

 $\triangleleft$  and  $\triangleright$ ,

then open the menu by pressing  $\nabla$ . The first item in the menu is highlighted.

Select an item in the menu using  $\bigwedge$  and  $\bigvee$ .

To open another menu, first close the current menu by pressing **MENU**.



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### **Submenus**

Select a submenu using

 $\bigwedge$  and  $\overline{\bigvee}$  .

then open the submenu by pressing ENTER.

The submenu appears to either the left or right side of the menu it was called from, depending on the space available.

The name of the submenu is shown at the top.

To close the submenu, press MENU.

Sometimes, a submenu leads to a sub submenu:

Select the sub submenu using

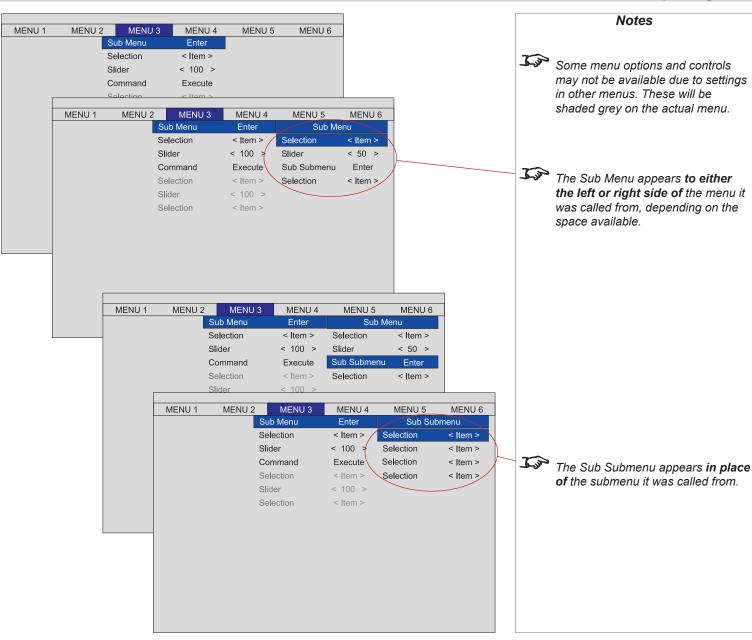
 $\bigwedge$  and  $\overline{\bigvee}$  .

then open it by pressing ENTER.

The sub submenu appears *in place of* the submenu it was called from.

The name of the sub submenu is shown at the top.

 To close the sub submenu, press MENU.



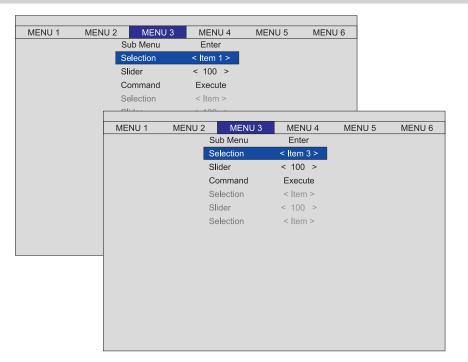
### **Selecting parameters**

Most parameters are changed by selecting from a list:

Select from the list using



• The change will usually be made immediately.



Some parameters are changed by selecting from a submenu.

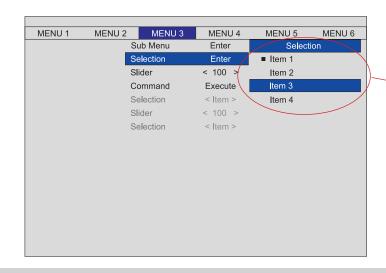
Press ENTER to open the menu.

The submenu appears to the left or right side, or in place of the menu it was called from, depending on the space available.

- The item that is currently selected is marked with a block: ■.
- Select from the submenu using

 $\bigwedge$  and  $\overline{\bigvee}$  .

 The change will be made when you press ENTER to confirm the selection.



Notes

Some menu options and controls may not be available due to settings in other menus. These will be shaded grey on the actual menu.

There may be a short delay when changing some parameters, due to internal processing time.

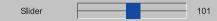
The submenu appears to the left or right side, or in place of the menu it was called from, depending on the space available.

### **USING THE MENUS**

### **Sliders**

- Use or to adjust the value. The menu will disappear, to be replaced by a slider bar.
- To return to the menu, press **MENU**.



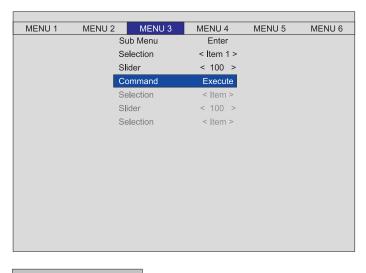


### **Commands**

To execute the command, press ENTER.

In this example,

- use or to move the **blue** highlight to **OK** or **Cancel**,
- then press ENTER to confirm your selection.





### Notes



Some menu options and controls may not be available due to settings in other menus. These will be shaded grey on the actual menu.

# **A Tour Of The Menus**

### **INPUT** menu

INPUT	PICTURE	L/	AMPS	ALIGNMENT	CONTROL	SERVICE
Input Selectio	n		Enter			
PIP			Enter			
Test Pattern			Enter			
Color Space		<	Auto	>		
Input Lock		<	Auto	>		
Background		<	Logo	>		
Video Standaı	rd	<	Auto	>		
Auto Sync Ad	just	<	Always	; >		

### **Input Selection**

Press **ENTER** to open the **Input Selection** menu, then select an input from the list.

### PIP (Picture in Picture) submenu

Press **ENTER** to open the **PIP** submenu.

### **PIP Option**

Set PIP Option to On or Off.

### **PIP Input**

- Select a **PIP Input** from the drop-down list. The inputs are divided into two groups – the main image must be from one group, and the subimage must be from the other group.
- Group A: VGA, Component/BNC, Composite, S-Video
- Group B: HDMI, DVI, 3G-SDI

### **PIP Swap**

Swaps the main and PIP image input.

### **Position**

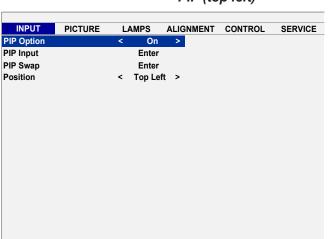
Select a **Position** or **Split L-R** for the PIP image.



PIP (split L-R)



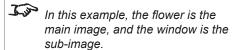
PIP (top left)



### Notes



See also **Using the Menus**, earlier in this guide and **Menu Map**, later in this guide.



The two images MUST be from different Input groups.

Input Menu PIP Submenu

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### **INPUT menu** continued

### **Test Pattern**

- Press **ENTER** to display a Test Pattern.
- Use or to scroll through the following Test Patterns:

... Off, Color Bars, Alignment Grid, Burst, Red, Green, Blue, White, Black, Cross Mark, Cross Hatch + Mark, Corrected Red, Corrected Green, Corrected Blue, Horizontal Ramp, Off ...

To return to viewing the image from your image source, use or to scroll through the list to Off.

### **Color Space**

Set this to Auto, except when the projector has problems selecting between YCrCb, YPrPb, RGB-PC and RGB-Video.

### **Input Lock**

Set this to Auto, except when the projector has problems locking on to 48Hz, 50Hz and 60Hz signals.

### **Background**

Set this to determine what appears on screen when the projector is searching for a valid input source.

### **Video Standard**

Set this to Auto, unless the projector has problems selecting between PAL, SECAM and NTSC.

### **Auto Sync Adjust**

- Select from
  - Off: Auto Sync Adjustment is never performed.
  - Auto Projector will compare with the previous five signals stored in memory, and then recall those settings if possible.
  - Always Projector will perform auto setup every time a new signal source is connected, ignoring any settings in memory.

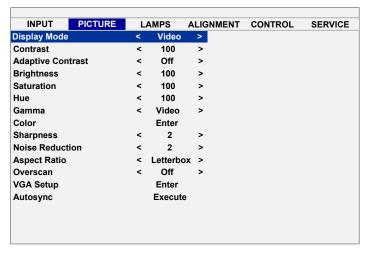
### **Notes**



See also Using the Menus, earlier in this guide and Menu Map, later in this guide.

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### **PICTURE** menu



### **Display Mode**

• Select one of the Display modes as required.

### Contrast, Brightness, Saturation, Hue

Adjust the sliders for these settings, as required.

### **Adaptive Contrast**

• Set this to **On** or **Off** as required.

### Gamma

• Select one of the Gamma settings as required.

### Notes



See also **Using the Menus**, earlier in this guide and **Menu Map**, later in this guide.

### **PICTURE menu** continued

### Color submenu

Press **ENTER** to open the Color submenu.

### **Color Temperature**

Set this to suit the specification of the input source, or to improve the appearance of the projected image.

### **Trim**

Set the Red, Green and Blue Lift and Gain settings, to improve the appearance of the projected image.

### **Sharpness, Noise Reduction**

Adjust the sliders for these settings, as required.

### **Aspect Ratio**

Set Aspect Ratio to suit the incoming video signal.

The 5:4, 4:3, 16:10, 16:9, 1.88:1 and 2.35:1 settings will stretch the image to the selected aspect ratio, leaving black bars at the top and bottom or sides of the screen, depending on the aspect ratio of the projector.

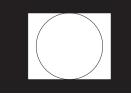
The Letterbox setting can be used where a wide screen image has been supplied in a narrower format with black bars at the top and bottom. The top and bottom of the image will be cropped, and the image stretched to fill the screen.

The Native setting will scale the image to fit either the full height or width of the screen, whilst retaining the aspect ratio of the image.

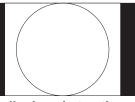
The **Unscaled** setting will display the image pixel for pixel at its supplied resolution, in the centre of the screen. There may be black bars at the top and bottom or sides of the screen, or the image may be cropped, depending on the video signal and the aspect ratio of the projector.



5:4 image



displayed unscaled



displayed at native

### **Notes**



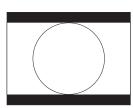
See also **Using the Menus**, earlier in this guide and Menu Map. later in this guide.



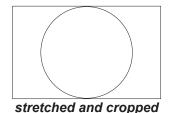
Color Temperature is unavailable when Edge Blend is enabled.

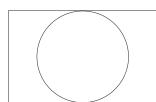


The full height and width of the screen will depend on the projector model. For more information, see the Specification leaflet, or the Important Information.

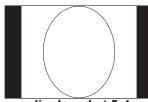


letterbox image

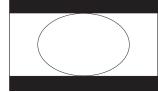




16:10 image



displayed at 5:4



displayed at 2.35:1

### **PICTURE menu** continued

### **Overscan**

• Set this to **Off On** or **Zoom** as required.

### **VGA Setup submenu**

• Press **ENTER** to open the VGA Setup submenu.

### Horizontal Total, Start and Phase, Vertical Start

• Adjust the sliders for these settings, as required to suit the incoming image.

### **Auto Sync**

• Press **ENTER** to force the projector to re-synchronise with the input signal.

### Notes

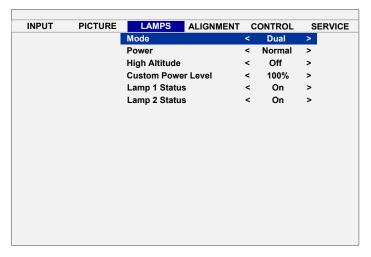


See also **Using the Menus**, earlier in this guide and **Menu Map**, later in this guide.



Overscan is used to compensate for noisy or badly defined image edges, by cropping the image, or increasing the size of the image to force the edges off-screen.

### **LAMPS** menu



### Mode

Set this to Single or Dual as required.

When the mode is changed, it will not be possible to change it again within five minutes.

### **Power**

Set this to **Normal** for 100% power, **Eco** for 80% power or **Custom** to enable the Custom Power slider.

### **High Altitude Mode**

Set this to **On** if it is necessary to have the cooling fans running at high speed.

### **Custom Power Level**

Set the slider as required.

### **Lamp Status**

For information only.

### Notes



See also **Using the Menus**, earlier in this guide and **Menu Map**, later in this guide.



When Lamp Mode is set to Single, the projector will turn on using the lamp with the least hours of use.



To protect the lamps from thermal shock, it will not be possible to change the Lamp Mode more than once within five minutes.



The **Power** setting should be set to Custom, if you want to use the **Custom Power Level** slider.

Notes

See also Using the Menus, earlier in this guide and Menu Map, later in

this guide.

### **ALIGNMENT** menu

INPUT	PICTURE	LAMPS	ALIGNMENT	CONTROL	SERVI	CE
			Projection Mod	de <	Front	>
			Fan Mode	<	Normal	>
			Lens Control		Enter	
			Lens Memory		Enter	
			Center Lens		Execute	
			Warp		Enter	
			Blanking		Enter	
			Edge Blend		Enter	
			_			

### **Projection Mode**

Front and Rear define whether the projector is in front of the screen or behind it.
 Set to Ceiling + Front or Ceiling + Rear if the projector is ceiling mounted.

### **Fan Mode**

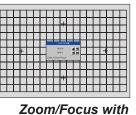
Adjusts the fan speeds to optimise cooling when the projector is in vertical orientation.
 Set to Up or Down as appropriate when projecting lens up or down.

### **Lens Control**

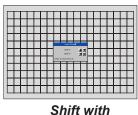
- Press **ENTER** to display the Lens Control box.
- Press **ENTER** again to scroll through the following combinations of lens control and background pattern:



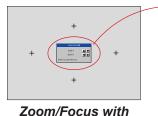
no pattern



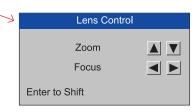
grid and crosses

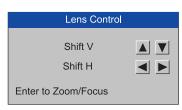


grid



crosses





• Use  $\langle , \rangle$ ,  $\Delta$  and  $\nabla$  to **Shift** the lens or to adjust the **Zoom** and **Focus**, as applicable

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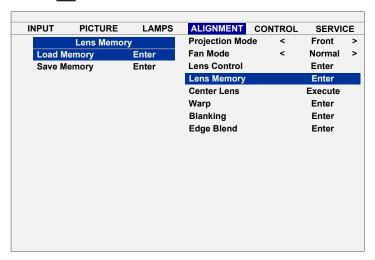
### **Lens Memory submenu**

The current lens position, focus and zoom settings can be saved in one of ten memories, for later recall.

Press **ENTER** to open the Lens Memory submenu.

### **Save Memory**

- Press ENTER to open the Save Memory submenu.
- Use  $\bigwedge$  and  $\bigvee$  to select from **Lens Memory 1** to **Lens Memory 10**.



Press **ENTER** to save the current settings.

### **Load Memory**

- Press **ENTER** to open the Load Memory submenu.
- Use  $\bigwedge$  and  $\bigvee$  to select from **Lens Memory 1** to **Lens Memory 10**.
- Press **ENTER** to recall the saved settings.

### **Center Lens**

Press ENTER to Center the Lens.

### **Notes**



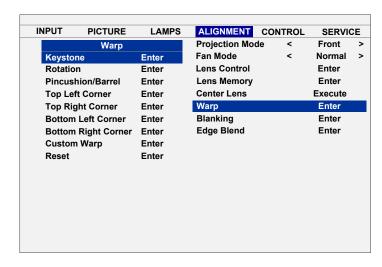
See also **Using the Menus**, earlier in this guide and Menu Map, later in this guide.

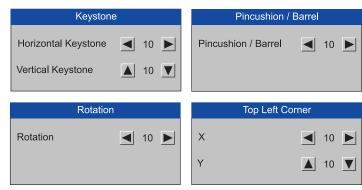


The Center Lens command must be used after a new lens is inserted.

### Warp submenu

Press **ENTER** to open the Warp submenu.





Warp control boxes

### Keystone, Rotation, Pincushion/Barrel, Corner

- $\setminus$  and  $\bigvee$  to select one of the warp controls.
- Press **ENTER** to open the warp control box:
  - Use the **Keystone** control to correct for any distortion caused by the projector being in a different horizontal or vertical plane to the screen..
  - Use the **Rotation** control to rotate the image up to 5° clockwise or anti-clockwise.
  - Use the **Pincushion/Barrel** control to correct for any distortion caused by the screen being concave or convex.
  - Use the four **Corner** controls to stretch the image from each of the four corners..
  - Use **Custom Warp** to activate a user-defined warp pattern.

### Reset

Press **ENTER** to reset all warp settings to zero.

### **Notes**



See also **Using the Menus**, earlier in this guide and **Menu Map**, later in this guide.



Only one of the Warp controls, or the Blanking control can be used at any one time.

> Exception: all four Corner controls can be used at the same time.

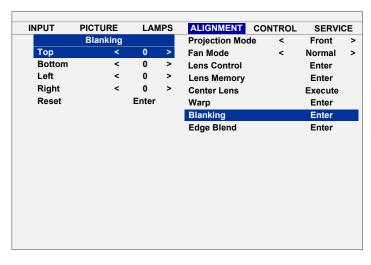
If the Edge Blend feature is in use, then only the four Corner controls can be used.



If you are not sure which Warp control is in use, then select Reset. from the Warp menu to reset all controls to zero.

### **Blanking submenu**

Press **ENTER** to open the Blanking submenu.



### Top, Bottom, Left and Right

Set each slider as required.

### Reset

Press **ENTER** to reset all blanking settings to zero.

### Notes



See also **Using the Menus**, earlier in this guide and Menu Map, later in this guide.



Only one of the Warp controls, or the Blanking control can be used at any one time.

> Exception: all four Corner controls can be used at the same time.

If the Edge Blend feature is in use, then only the four Corner controls can be used.

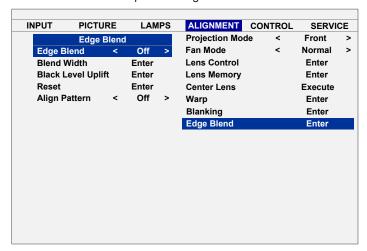


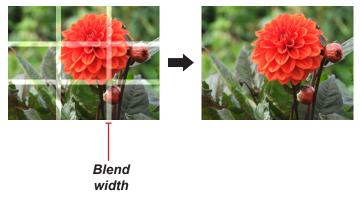
If you are not sure which Warp control is in use, then select Reset, from the Warp menu to reset all controls to zero.

### **Edge Blend submenu**

When several projectors are used to create a large tiled image, the edges need to be blended to avoid the overlaps appearing brighter than the rest of the image...

Press **ENTER** to open the Edge Blend submenu.





### **Notes**

See also **Using the Menus**, earlier in this guide and Menu Map. later in this guide.

Only one of the Warp controls, or the Blanking control can be used at any one time.

> Exception: all four Corner controls can be used at the same time.

If the Edge Blend feature is in use, then only the four Corner controls can be used.

Black Level Uplift is available for up to two edges only, and they must be top+bottom, or left+right - not top+left for example.

Therefore, uplift can only be used for an array of projectors either:

1 projector high or 1 projector wide

### **Edge Blend**

Set this to **Off** or **On** as required.

### **Blend Width**

- Press ENTER to open the Blend Width submenu.
- Set the **Width** sliders to the blend width required for each edge to be blended.

### **Black Level Uplift**

- Press **ENTER** to open the Black Level Uplift submenu.
- Set the Area sliders to correct for stray light from the DMD's non-addressable border.
- Set the All sliders for the amount of uplift required; the Color sliders can be used for fine adjustment.

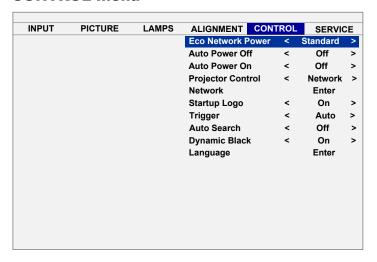
### Reset

Press **ENTER** to reset all edge blend settings to zero.

### Align Pattern

Set this to Off or On as required.

### **CONTROL** menu



### **Eco Network Power**

Set this to Standard or Eco as required. In Eco mode, the LAN power supply is switched off.

### **Auto Power Off**

Set this to **On**, if you want the projector to go into **Standby mode** when no input source is detected for 20 minutes.

### **Auto Power On**

- Set this to **On**, if you want the projector to start up immediately when the mains is connected.
- Set this to Off, if you want the projector to go into Standby mode when the mains is connected. In this case, the projector will not start up until the POWER button is pressed on the control panel or the remote control.

### Notes



See also **Using the Menus**, earlier in this guide and Menu Map, later in this guide.



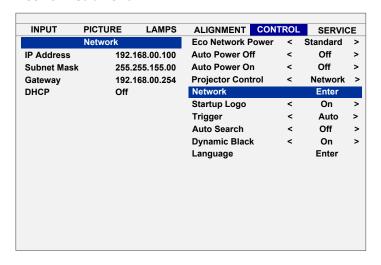
**Eco Network Power** must be set to Standard, if you wish to control the projector via the LAN connection.

**CONTROL** menu continued

### **Projector Control**

• Set this to **Network** or **RS232** as required.

### **Network submenu**



Press **ENTER** to open the Network submenu.

The settings here are for information only.

### Notes



See also Using the Menus, earlier in this guide and Menu Map, later in this guide.



**Eco Network Power** must be set to Standard, if you wish to control the projector via the LAN connection.



To change any of the network settings, use the embedded LAN IP Configuration Utility (see the Remote Communications Guide).

### **CONTROL** menu continued

### **Startup Logo**

• Set this to **On** if you want the DP logo to show when the projector is first switched on.

### **Trigger**

- Set this to **Auto** if you want the **Trigger** output to be activated when the projector is first switched on.
- Set this to one of the Aspect Ratio settings, if you want the Trigger output to be activated when the projector is switched to that aspect ratio.

### **Auto Search**

- When this is set to **On**, the projector will search for an alternative input source when the current input source is disconnected
- When this is set to **Off**, the projector will show the DP logo when the current input source is disconnected.

### **Dynamic Black**

Set this to **On** or **Off** as required.

### Language

• Press **ENTER** to open the Language Selection menu, then select an language from the list.

### Notes

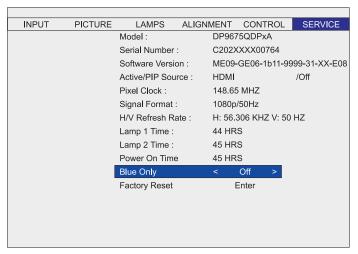


See also **Using the Menus**, earlier in this guide and **Menu Map**, later in this guide.



Dynamic Black reduces the overall light output for images that contain a lot of black. This improves the perceived contrast ratio.

### **SERVICE** menu



### Information

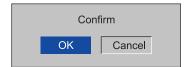
• The first part of the menu is for information only.

### **Blue Only**

Set this to **On** or **Off** as required.

### **Factory Reset**

- Projector will ask for confirmation before restoring all settings to factory defaults.
- When the confirmation box appears, use or to move the blue highlight to **OK** or **Cancel**, then press **ENTER** to confirm your selection.







See also Using the Menus, earlier in this guide and Menu Map, later in this guide.



Do NOT do this unless you are sure that you want to restore ALL settings to their factory defaults.

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# Menu Map

Submenus and Controls Menu

**INPUT** 

Input Selection HDMI, DVI, VGA, Component/BNC, Composite, S-Video, 3G-SDI, Option Board PIP

PIP Option Off, On

PIP Input Select from group B or group A

Position Top Left, Top Right, Bottom Left, Bottom Right, Split L-R

Test Pattern Off, Color Bars, Alignment Grid, Burst, Red, Green, Blue, White, Black, Cross Mark, Cross Hatch + Mark, Corrected Red, Corrected Green, Corrected Blue, Horizontal Ramp

Color Space Auto, YCbCr, YPbPr, RGB-PC, RGB-Video

Input Lock Auto, 48Hz, 50Hz, 60Hz

Background Logo, Blue, Black, White

Video Standard Auto. PAL. SECAM. NTSC

Auto Sync Adjust Always, Off, Auto

**PICTURE** 

Display Mode Video, High Bright, Presentation

Contrast

Adaptive Contrast Off, On

**Brightness** 

Saturation

Hue

Gamma Video, Linear, Film, Graphics

Color

Color Temperature Native, 5000K, 6500K, 7800K, 9300K

Trim RGB Lift and Gain

Sharpness

Noise Reduction

Aspect Ratio 5:4, 4:3, 16:10, 16:9, 1.88, 2.35, Letterbox, Native, Unscaled

Overscan Off, Crop, Zoom

VGA Setup H Total, H Start, H Phase, V Start

**Auto Sync** Press **ENTER** to execute

**Notes** 

Some of the information in this menu map is summarised. See the actual menu on the projector for full detail.



Some menu options and controls may not be available due to settings in other menus. These will be shaded grey on the actual menu.



Where it would be helpful, some menu options are described in more detail earlier in this operating guide.



Color Temperature values depend on other settings.

# Menu **LAMPS**

Mode Dual, Single

Power Normal, Custom Power, Eco

Submenus and Controls

High Altitude Off, On

**Custom Power Level** 80-100%

Lamp Status Information Only: Lamp 1 On, Off Lamp 2 On, Off

### **ALIGNMENT**

**Projection Mode** Front, Rear, Ceiling + Front, Ceiling + Rear

Fan Mode Normal, Up, Down

Lens Control Shift. Zoom/Focus

**Lens Memory** 

Load Memory Memory 1-10 Save Memory Memory 1-10

**Center Lens** Press **ENTER** to execute

Warp

Keystone Horizontal, Vertical

Rotation

Pincushion/Barrel

Top Left Corner, Top Right, Bottom Left, Bottom Right

**Custom Warp** 

Reset (all warp settings) Press ENTER to execute

**Blanking** Top, Bottom, Left, Right, Reset (all blanking settings)

### Edge Blend

Edge Blend Off, On

Blend Width Top, Bottom, Left, Right

Black Level Uplift

Select Area Top, Bottom, Left, Right

Adjust Width All, Red, Green, Blue

Reset (all edge blend settings) Press ENTER to execute

Align Pattern Off, On

### Notes



Some of the information in this menu map is summarised. See the actual menu on the projector for full detail.



Some menu options and controls may not be available due to settings in other menus. These will be shaded grey on the actual menu.



Where it would be helpful, some menu options are described in more detail earlier in this operating guide.

# CONTROL

Menu

Eco Network Power Standard, Eco

Auto Power Off On, Off Auto Power On On, Off

Submenus and Controls

Projector Control RS232, Network

**Network** Information only: IP Address, Subnet Mask, Gateway, DHCP

Startup Logo On, Off

Trigger Auto, 5:4, 4:3, 16:10, 16:9, 1.88, 2.35, Letterbox, Native, Unscaled

Auto Search On, Off Dynamic Black On, Off Language Select from list

### **SERVICE**

Information only: Model, Serial Number, Software Version, Active/PIP Source, Pixel Clock, Signal Format, H/V Refresh Rate, Lamp Time, Power On Time,

Blue Only Off, On

Factory Reset Press ENTER to execute.

### Notes



Some of the information in this menu map is summarised. See the actual menu on the projector for full detail.



Some menu options and controls may not be available due to settings in other menus. These will be shaded grey on the actual menu.



Where it would be helpful, some menu options are described in more detail earlier in this operating guide.

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# PROJECTION REMOTE COMMUNICATIONS GUIDE

E-Vision 8000 Series

**High Brightness Digital Video Projector** 



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# Introduction

The projector can be controlled by using an external control system or a PC via a LAN or RS232 serial interface, using a terminal-emulation program, such as HyperTerminal.

### **Operation commands**

Operation commands simulate menu operations and determine the settings of the projector, and use the following format:

- All commands consist of ASCII text strings starting with the letters 'op', and ending with an ASCII Carriage Return character: op <operation> <command> [CR]
- The <command> string can take one of the following formats:

	<command/>	Description	
Set	= <value></value>	Makes the setting take that value.	
Get	?	Asks what the current value is.	
		The value is returned as an ASCII text string.	
Increment	+	Adds 1 to the current value.	
Decrement	-	Subtracts 1 from the current value.	
Execute	(none)	Performs an action.	

### **Examples**

op input.sel = 1 [CR] sets the input signal to DVI

op input.sel ? [CR] asks what is the input signal

op brightness + [CR] increments the brightness setting op contrast – [CR] decrements the contrast setting

op auto.img [CR] commands the projector to attempt to re-synchronise to the current input source

## **Key commands**

Key commands duplicate remote control key presses and use the following format:

ky <operation>[CR]

Examples

brings up the list of available test patterns (identical to pressing the TEST PATTERN key on the remote) ky testpattern[CR]

ky input[CR] brings up the list of available input sources (identical to pressing the INPUT key on the remote)

ky power.off[CR] switches the projector off (identical to pressing the POWER OFF key on the remote)

### Notes



Details of how to connect to the projector, using the serial control or LAN inputs, can be found in the Connections Guide.



Spaces in the commands are necessary.

> op input.sel = 1eg NOT opinput.sel=1



The TCP Port number is 7000.



The **Serial Port** settings are:

- Baud rate 38,400 bps
- Data length 8 bits
- · Stop bits one
- Parity none
- Flow control none

# The Operation Commands

<pre><operation></operation></pre>	<command/>	<values></values>	Notes			
INPUT menu						
input.sel	= ?	0 = HDMI 1 = DVI 2 = VGA 3 = Component / BNC 4 = Composite 5 = S-Video 6 = 3G-SDI	Not applicable when <b>Picture Mute</b> is <b>On</b> .			
pip	= ?	0 = Off 1 = On				
pip.sel	= ?	1 = HDMI 2 = DVI 3 = VGA 4 = Component / BNC 5 = Composite 6 = S-Video 7 = 3G-SDI	Cannot be set to 0.			
pip.swap	(execute)	Swap main and PIP source	Not applicable without signal locked.			
pip.pos	= ?	0 = Top left 1 = Top right 2 = Bottom left 3 = Bottom right 4 = Split L-R	Not applicable when PIP is Off.			

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Notes

Notes

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<pre><operation></operation></pre>	<command/>	<values></values>	Notes
pattern	= ?	0 = Color Bar 1 = Cross Hatch 2 = Burst 3 = Red 4 = Green 5 = Blue 6 = White 7 = Black 8 = Cross Mark 9 = Cross Hatch + Mark 10 = Red (TI) 11 = Green (TI) 12 = Blue (TI) 13 = HRamp (TI) 14 = Off	
color.space	= ?	0 = Auto 1 = YCbCr 2 = YPbPr 3 = RGB-PC (0-255) 4 = RGB-Video (16-235)	Not applicable without signal locked.
input.lock	= ?	0 = Auto 1 = 48 Hz 2 = 50 Hz 3 = 60 Hz	Not applicable without signal locked.
no.signal	= ?	0 = Logo 1 = Blue 2 = Black 3 = White	
vid.std	= ?	0 = Auto 1 = PAL 2 = SECAM 3 = NTSC	Not applicable without signal locked. Only valid when the input is <b>Composite</b> or <b>S-Video</b> .
auto.imgadj	= ?	0 = Off 1 = Auto 2 = Always	Not applicable without signal locked.

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Notes

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<operation></operation>	<command/>	<values></values>	Notes
PICTURE me	enu	•	·
pic.mode	= ?	0 = High Bright 1 = Presentation 2 = Video	
contrast	= ? + -	0 ~ 200	Not applicable without signal locked.
dyna.cont	= ?	0 = Off 1 = On	Not applicable without signal locked.
bright	= ? + -	0 ~ 200	Not applicable without signal locked.
saturat	= ? + -	0 ~ 200	Not applicable without signal locked. Only valid when the input is <b>Composite</b> or <b>S-Video</b> .
tint	= ? + -	0 ~ 200	Hue Not applicable without signal locked. Only valid when the input is Composite or S-Video.
gamma	= ?	0 = Film 1 = Graphics 2 = Video 3 = Linear	Not applicable without signal locked.
color.temp (pic.mode is "High Bright")	?	5 = Native	Not applicable without signal locked. Not applicable when <b>Color Space</b> is set to <b>Custom</b> . Not applicable when edge blending is on.
color.temp (pic.mode is "Presentation")	= ?	2 = 6500K 5 = Native	Not applicable without signal locked. Not applicable when <b>Color Space</b> is set to <b>Custom</b> . Not applicable when edge blending is on.
color.temp (pic.mode is "Video")	= ?	0 = 5000K 2 = 6500K 3 = 7800K 4 = 9300K 5 = Native	Not applicable without signal locked. Not applicable when <b>Color Space</b> is set to <b>Custom</b> . Not applicable when edge blending is on.
red.offset	= ? + -	0 ~ 200	Not applicable without signal locked.
green.offset	= ? + -	0 ~ 200	Not applicable without signal locked.

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<operation></operation>	<command/>	<values></values>	Notes
blue.offset	= ? + -	0 ~ 200	Not applicable without signal locked.
red.gain	= ? + -	0 ~ 200	Not applicable without signal locked.
green.gain	= ? + -	0 ~ 200	Not applicable without signal locked.
blue.gain	= ? + -	0 ~ 200	Not applicable without signal locked.
sharpness	= ? + -	0 ~ 200	Not applicable without signal locked.
nr	= ? + -	0 ~ 200	Noise Reduction  Not applicable without signal locked.
aspect	= ?	0 = 5:4 1 = 4:3 2 = 16:10 3 = 16:9 4 = 1.88 5 = 2.35 6 = Letterbox 7 = Native 8 = Unscaled	Not applicable without signal locked.  Native aspect ratio is not applicable when zoom is set to Zoom.
zoom	= ?	0 = Off 1 = Crop 2 = Zoom	Overscan  Not applicable without signal locked.  Zoom is not applicable when aspect ratio is set to Native.
h.total	= ? + -	0 ~ 200	Not applicable without signal locked. Only applicable when the source is either <b>VGA</b> or <b>Component</b> .
h.pos	= ? + -	0 ~ 200	Not applicable without signal locked.
h.phase	= ? + -	0 ~ 200	Not applicable without signal locked. Only applicable when the source is either <b>VGA</b> or <b>Component</b> .
v.pos	= ? + -	0 ~ 200	Not applicable without signal locked.
auto.img	(execute)		Auto Sync Not applicable without signal locked.

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Notes

Notes

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<operation></operation>	<command/>	<values></values>	Notes
LAMPS me	nu	•	·
lamps	= ?	0 = Single 1 = Dual	Not applicable when lamp is cooling.
lamp.mode	= ?	0 = Economy 1 = Standard 2 = Dimming	Drive Not applicable without signal locked.
lamp.pwr	= ?	0 ~ 25 ( 80.4 % ~ 100.0 % )	Not applicable without signal locked.
altitude	= ?	0 = Off 1 = On	High Altitude
lamp1.stat	?	0 = Off 1 = On	
lamp2.stat	?	0 = Off 1 = On	
ALIGNMEN	T menu		·
proj.mode	= ?	0 = Front 1 = Rear 2 = Ceiling + Front 3 = Ceiling + Rear	
fan.pos	= ?	0 = Normal 1 = Vertical 2 = Down	
zoomio	+-	+ = Zoom out - = Zoom in	
focus	+ -	+ = Focus Near - = Focus Far	
vert.offset	+-	+ = Up - = Down	Vertical Lens Shift
horiz.offset	+-	+ = Right - = Left	Horizontal Lens Shift
lens.load	=	1 ~ 10	Lens Memory Load
lens.save	=	1 ~ 10	Lens Memory Save
lens.center	(execute)		

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<operation></operation>	<command/>	<values></values>	Notes
h.keystone	= ? + -	-350 ~ +350	The sum of the absolute values of h.keystone and v.keystone cannot be greater than 350.
v.keystone	= ? + -	-200 ~ +200	The sum of the absolute values of h.keystone and v.keystone cannot be greater than 350.
warp.rotat	= ? + -	-20 ~ +20	Each unit is ¼°.
warp.pinbrl	= ? + -	-100 ~ +100	Pincushion/Barrel
warp.tlc.x warp.tlc.y	= ? + -	x: -192 ~ +192 y: -120 ~ +120	Top Left Corner
warp.trc.x warp.trc.y	= ? + -	x: -192 ~ +192 y: -120 ~ +120	Top Right Corner
warp.blc.x warp.blc.y	= ? + -	x: -192 ~ +192 y: -120 ~ +120	Bottom Left Corner
warp.brc.x warp.brc.y	= ? + -	x: -192 ~ +192 y: -120 ~ +120	Bottom Right Corner
warp.reset	(execute)		
blank.top	= ? + -	0 ~ 360	
blank.btm	= ? + -	0 ~ 360	
blank.left	= ? + -	0 ~ 534	
blank.right	= ? + -	0 ~ 534	
blank.rst	(execute)		
eb.stat	= ?	0 = Off 1 = On	Edge Blend
eb.wht.top	= ? + -	0, 200 ~ 500	Blend Width Top 1-199 not allowed
eb.wht.btm	= ? + -	0, 200 ~ 500	Blend Width Bottom 1-199 not allowed
eb.wht.left	= ? + -	0, 200 ~ 800	Blend Width Left 1-199 not allowed
eb.wht.right	= ? + -	0, 200 ~ 800	Blend Width Right 1-199 not allowed
eb.blk.top	= ? + -	0, 8, 16, 24, 32	Black Level Uplift Area Top

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Notes

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<pre><operation></operation></pre>	<command/>	<values></values>	Notes
eb.blk.btm	= ? + -	0, 8, 16, 24, 32	Black Level Uplift Area Bottom
eb.blk.left	= ? + -	0, 4, 8, 12, 16, 20, 24, 28, 32	Black Level Uplift Area Left
eb.blk.right	= ? + -	0, 4, 8, 12, 16, 20, 24, 28, 32	Black Level Uplift Area Right
eb.all	= ? + -	0 ~ 32	Black Level Uplift Adjust Width All
eb.red	= ? + -	0 ~ 32	Black Level Uplift Adjust Width Red
eb.green	= ? + -	0 ~ 32	Black Level Uplift Adjust Width Green
eb.blue	= ? + -	0 ~ 32	Black Level Uplift Adjust Width Blue
eb.reset	(execute)		
eb.adl	= ?	0 = Off 1 = On	Align Pattern
CONTROL	menu	·	·
eco.net.pow	= ?	0 = Off (ECO Standby Mode) 1 = On (Standard Standby Mode)	Eco Network Power
auto.powoff	= ?	0 = Off 1 = On	
auto.powon	= ?	0 = Off 1 = On	
proj.ctrl	= ?	0 = RS232 1 = network	Not applicable when <b>Eco Network Power</b> is on.
net.ipaddr	= ?	<string></string>	
net.subnet	= ?	<string></string>	
net.gateway	= ?	<string></string>	
net.dhcp	= ?	0 = Off 1 = On	
startup.logo	= ?	0 = Off 1 = On	

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Notes

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<operation></operation>	<command/>	<values></values>	Notes
trig.1	= ?	0 = 5:4 1 = 4:3 2 = 16:10 3 = 16:9 4 = 1.88 5 = 2.35 6 = Letterbox 7 = Native 8 = Unscaled 9 = Auto	If trig.1 is set to <b>Auto</b> , the projector will start sending the trigger as soon as it is switched on. Otherwise the trigger will be sent only when the aspect ratio matches this setting.
auto.src	= ?	0 = Off 1 = On	Auto Search
dblack	= ?	0 = Off 1 = On	Dynamic Black
lang	= ?	0 = English 1 = French 2 = Spanish 3 = German 4 = Portuguese 5 = Chinese Simplified 6 = Chinese Traditional 7 = Japanese 8 = Korean	
SERVICE m	nenu		
model	?	<string></string>	
ser.no	?	<string></string>	
sw.ver	?	<string></string>	
act.src	?	0 = HDMI 1 = DVI 2 = VGA 3 = Component / BNC 4 = Composite 5 = S-Video 6 = 3G-SDI	Active Source

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...continued from previous page

<pre><operation></operation></pre>	<command/>	<values></values>	Notes
pip.src	?	0 = HDMI 1 = DVI 2 = VGA 3 = Component / BNC 4 = Composite 5 = S-Video 6 = 3G-SDI	PIP Source
pixel.clock	?	<string></string>	In MHz Not applicable without signal locked.
signal	?	<string></string>	Not applicable without signal locked.
h.refresh	?	<string></string>	Not applicable without signal locked.
v.refresh	?	<string></string>	Not applicable without signal locked.
lamp1.hours	?	<string></string>	
lamp2.hours	?	<string></string>	
proj.runtime	?	<string></string>	
blue.only	= ?	0 = Off 1 = On	
fact.reset	(execute)		Factory reset
Miscellane	ous command	ds	
power.on	(execute)		Power on
power.off	(execute)		Power off (puts projector into <b>Standby</b> mode)
picture.mute	= ?	0 = Off 1 = On	
status	?	0 = standby 1 = warm up 2 = imaging 3 = cooling 4 = warning	
remote.set	= ?	1 ~ 10: Set Projector ID 255: Clear Projector ID (No ID)	

Notes

# The Key Commands

<operation></operation>	Corresponding remote control key	
power.on	POWER ON	
power.off	POWER OFF	
menu	MENU	
exit	EXIT	
input	INPUT	
picture	PICTURE	
network	NETWORK	
autosync	AUTO SYNC	
aspect	ASPECT	
pip	PIP	
overscan	OVERSCAN	
freeze	FREEZE	
lampmode	LAMP MODE	
info	INFO	
shutter	SHUTTER	
idset	ID SET	
lensshift	LENS SHIFT	
testpattern	TEST PATTERN	
enter	ENTER	
up	UP	
down	DOWN	
left	LEFT	
right	RIGHT	

### Notes



An input command will return "NA" when the input command is not applicable in some specific conditions.

# **Web Configuration Utility**

The LAN IP Address of the projector can be set remotely using the Web Configuration Utility.

- Make sure the projector is connected to a remote computer via LAN.
- From the remote computer, access the default LAN IP address of the projector. The Web Configuration Utility opens.

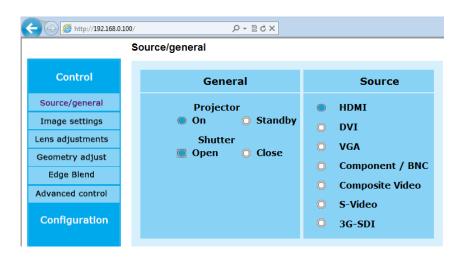
It is possible to control many of the projector's settings using the embedded Web Configuration Utility. The following pages contain a few examples of such settings.

### **Examples**

Navigate to the **Control** tab and edit the settings as required.

The **Source/general** page enables you to:

- switch the projector on and off
- open and close the shutter
- select an input source



### Notes



Eco Network Power must be set to Standard, if you wish to control the projector via the LAN connection.



The default LAN IP address is 192.168.0.100

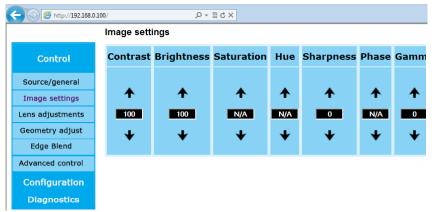
If you suspect this has been changed, then you can view the current Network settings in the Control Menu.



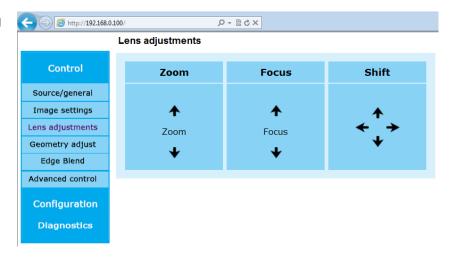
For more information about connecting the projector via LAN, see the **Connection Guide**.

### **Examples - continued from previous page**

The **Image settings** page allows access to settings from the **Picture** menu.



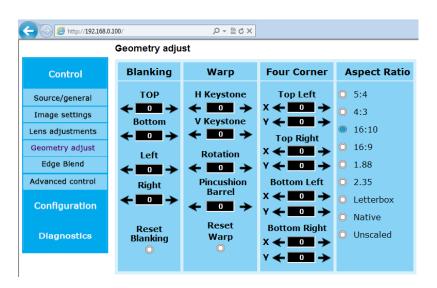
The **Lens adjustments** page allows access to lens control settings.

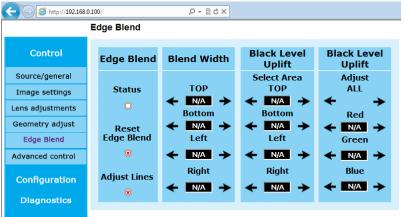


Notes

**Examples - continued from previous page** 

The **Geometry adjust** and **Edge Blend** pages allow access to settings from the **Alignment** menu.





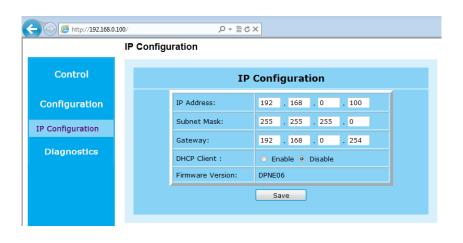
Notes

### **Examples - continued from previous page**

The **Advanced control** page allows access to settings from the **Picture** menu, **Color** sub-menu.

( http://192.168.0.100/ ρ- 20 c × **Advanced control Color Temp** Trim Control Black balance Source/general **®** 5000 Red Lift Image settings 100 **→** Lens adjustments **⊗** 6500 Geen Lift 100 Geometry adjust Blue Lift **8** 7800 Edge Blend 100 Advanced control White balance **8** 9300 Red Gain Configuration 100 **→** Native Diagnostics Green Gain 100 Blue Gain 100

To view and edit your network settings, navigate to the **Configuration** tab.



Notes